

General Description

The PMB 2333 is a low power amplifier and double balanced mixer up to 3 GHz for use in mobile communication equipment. It is fabricated using Siemens B6HF silicon bipolar process.

The amplifier may be used as low noise amplifier (LNA) or as driver amplifier. The amplified signal is external available for further use at the open collector output AO. The DC level at GC allows to adjust the amplifier current and the gain. Low current is recommended for using the amplifier as LNA, higher current for using it as driver.

The mixer is a general purpose up- and downconversion Gilbert cell mixer. Differential signals and symmetrical circuits are used throughout the mixer. The mixer input can be used in balanced or unbalanced configuration. The mixer outputs are high impedance open collector outputs. The adjustable mixer current allows to improve the mixer performance.

An internal bias driver generates supply voltage and temperature compensated reference voltages. The STB pin allows the mixer and bandgap part of the IC to be switched in power-down mode.

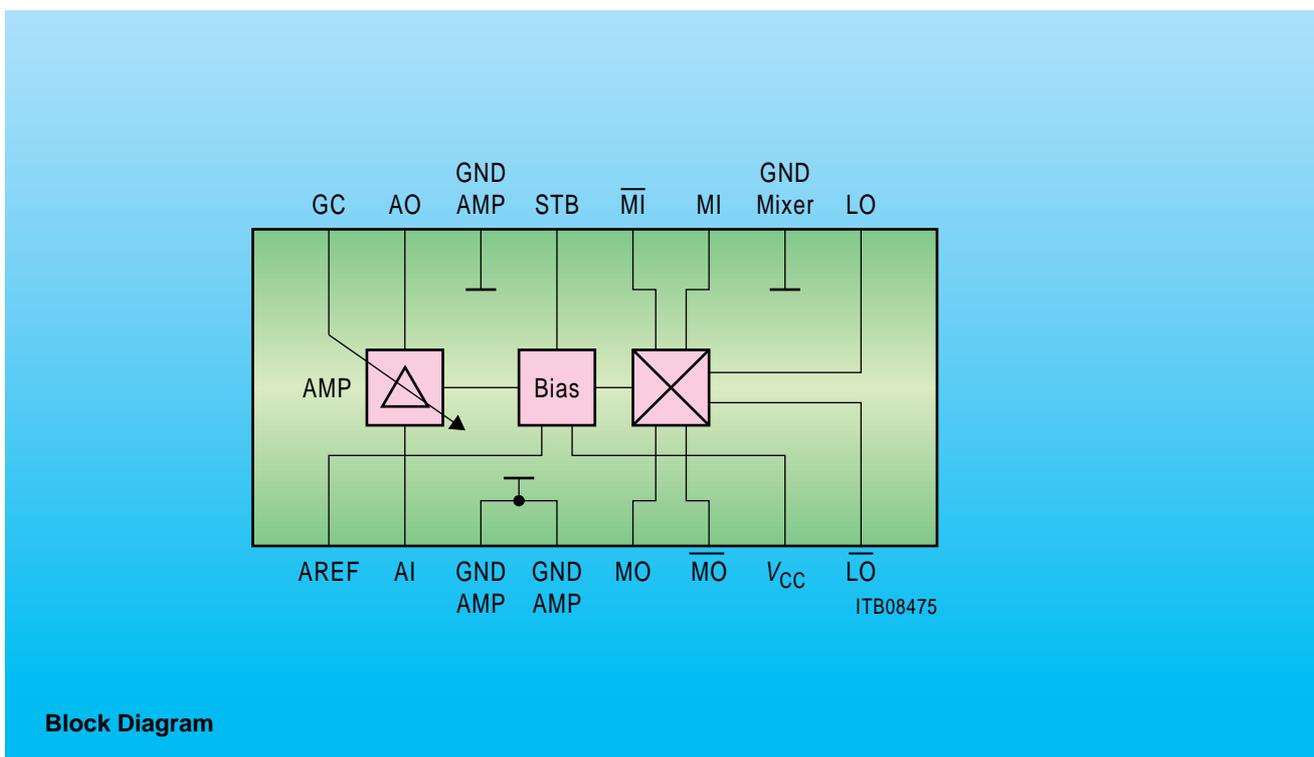
Applications

All analog and digital mobile communication systems as frontend-LNA or preamplifier-driver and up-/downconverter mixer.

Type	Package
PMB 2333-R	P-TSSOP-16-1 (Shrink, SMD)

Features

- Low operating current
- Power-down mode
- Amplifier frequency range up to 3 GHz
- LNA:
 - Variable gain,
 - High gain (typ. 12 dB at 1.8 GHz),
 - Low noise figure (typ. 1.7 dB at 1.8 GHz)
- Driver-amplifier:
 - Variable gain,
 - High output (typ. +12 dBm at 1.8 GHz)
- Double balanced mixer up to 3 GHz with high gain
- Excellent intercept performance
- High isolation values
- Few external components
- Operating voltage 2.7 V to 5.5 V
- T-SSOP-16 package
- Temperature range – 30 °C to 85 °C



Block Diagram